

Appl. No. 09/900,280  
Amdt. dated March 29, 2004  
Reply to Office Action of January 28, 2004

### REMARKS

In the Office Action dated January 28, 2004, claims 1-3, 13-15, 24-32, and 34-40 were rejected under 35 U.S.C. § 103 over U.S. Patent No. 6,484,159 (Mumick) in view of Colby et al., "Supporting Multiple View Maintenance Policies," (1997) (Colby). Applicant acknowledges the allowance of claims 4, 7, 8, 16-19, 33, and 43-40, as well as the indication that claims 41 and 42 contain allowable subject matter.

Applicant respectfully submits that claim 1 is not obvious over the asserted combination of Mumick and Colby. With respect to Mumick, the Office Action pointed to tables 114A-Z as being the recited auxiliary relation of claim 1. Note that such a reading is incorrect, as claim 1 recites storing a materialized join view based on at least two *base relations*, and storing at least one auxiliary relation containing one or more attributes of one of the *base relations*. As described in Mumick, its materialized views 122A-Z contain the result of a query applied on tables 114A-Z. Mumick, 3:20-31. In other words, the tables 114A-Z are base tables, and do not constitute an auxiliary relation that contains one or more attributes of one of the base relations. For at least this reason alone, the obviousness rejection is defective. Colby also does not disclose storing an auxiliary relation containing one or more attributes of a base relation.

More fundamentally, Applicant notes that neither Mumick nor Colby discloses or suggests storing an auxiliary relation partitioned across plural nodes of a database system according to a join attribute. As conceded by the Office Action, Mumick does not disclose the auxiliary relation partitioned across plural nodes according to a join attribute. However, the Office Action cited to Colby as disclosing this feature. The Office Action pointed to Figure 1 and page 408 of Colby, citing to the view groups represented by nodes of a view dependency graph. Applicant notes that the nodes of the view dependency graph are nodes of a *graph*, not nodes of a database system.

Moreover, as described by Colby, the view dependency graph is a graph with a node for each table referenced in the view definition. Colby, p. 407, Definition 2.1. Thus, each node in the view dependency graph described in Colby represents *one* table.

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Therefore, there can be no partitioning of a relation or table across plural nodes of a database system, as recited in claim 1.

Therefore, even if Mumick and Colby can be properly combined, the hypothetical combination of Mumick and Colby does not teach or suggest each and every element of the claim. A *prima facie* case of obviousness has thus not been established with respect to claim 1.

Moreover, with respect to dependent claim 2, there clearly is no teaching of storing a base relation that is partitioned across the plural nodes of the database system according to an attribute that is *different* from the join attribute. The amended subject of claim 2 is not addressed in the present Office Action, which referred to the previous language of claim 2. See 1/28/04 Office Action at 4.

With respect to claim 25 (which depends indirectly from claim 1), the Office Action has not cited to any passage within Mumick or Colby that teaches partitioning a first base relation across plural nodes in a first way, and partitioning the auxiliary relation across the plural nodes in a second, *different* way according to the join attribute.

With respect to independent claim 13, neither Mumick nor Colby describes or suggests a first auxiliary relation partitioned across storage modules *differently* than a base relation. In the rejection of claim 13, the Office Action does not address the language of claim 13 that refers to partitioning the first auxiliary relation across storage modules differently than a first base relation.

Therefore, a *prima facie* case of obviousness has not been established with respect to claim 13.


All other dependent claims are allowable for at least the same reasons as corresponding independent claims.

In view of the foregoing, all claims are in condition for allowance, which action is respectfully requested. The Commissioner is authorized to charge any additional fees, including extension of time fees, and/or credit any overpayment to Deposit Account No. 50-1673 (9917).

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Respectfully submitted,

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